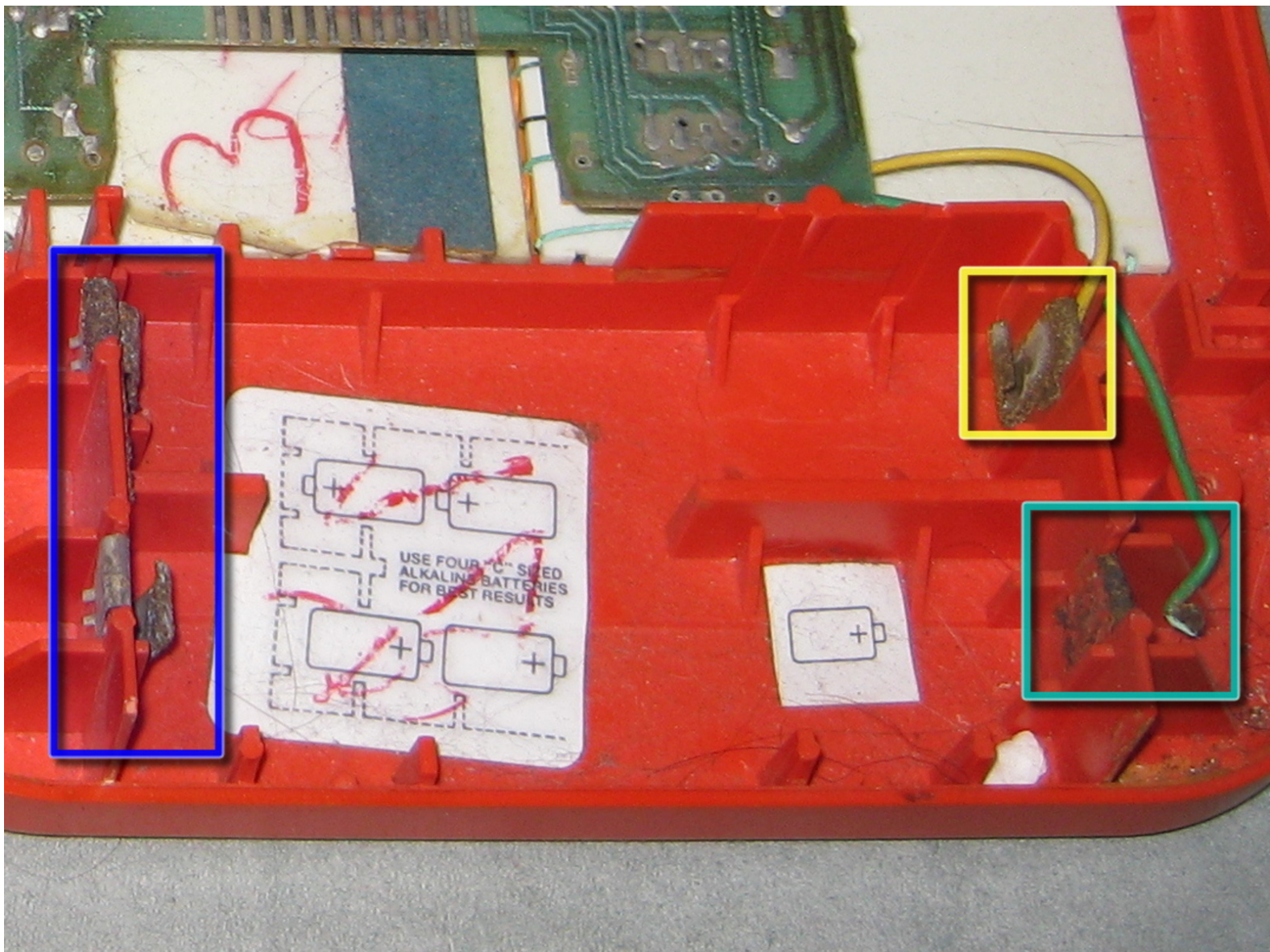




# Speak And Spell Battery Contacts Replacement

Steps to fix corroded battery contacts, a common malady among these toys.

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## INTRODUCTION

Never store an electronic device for long periods of time with batteries! Over time, alkaline batteries will leak and corrode any metal parts in your toy. The reality of the situation is that most old used toys (e.g. on eBay) that are broken can be fixed by repairing the corroded pieces; many times, this is as simple as repairing or replacing the battery contacts/terminals.



### TOOLS:

- [Soldering Station](#) (1)
- [Rotary Tool](#) (1)



### PARTS:

- [scrap metal](#) (1)

## Step 1 — Case



- Flip the toy over, so that the keypad is facing away from you.
- Remove two Phillips-head screws.
- Insert a plastic spudger (or 4!) into the marked holes, and push down and towards the edge to release each catch.
- ⓘ It's possible to release each catch one-at-a-time, but easier if you have 4 tools and do them simultaneously.
- ⚠ This requires quite a bit of force; be careful.

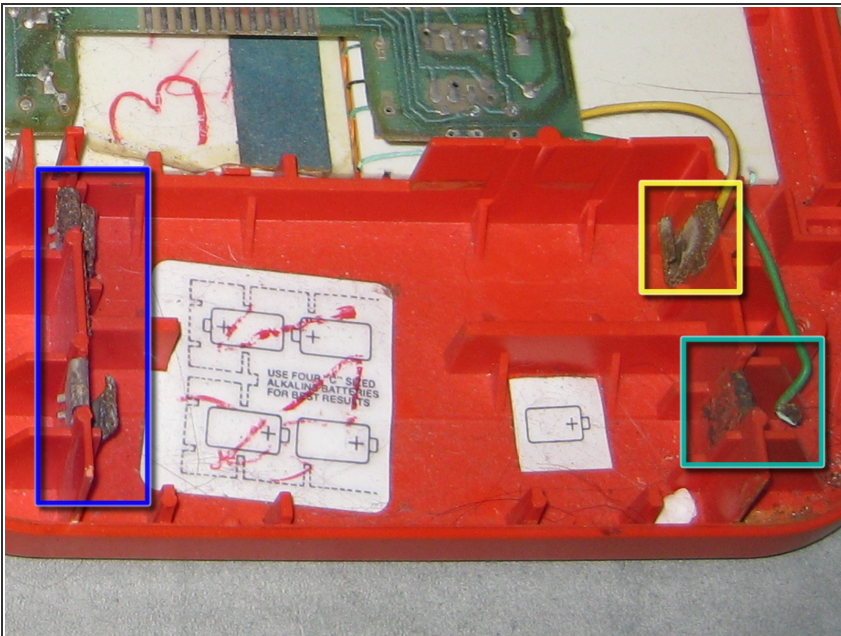


## Step 2



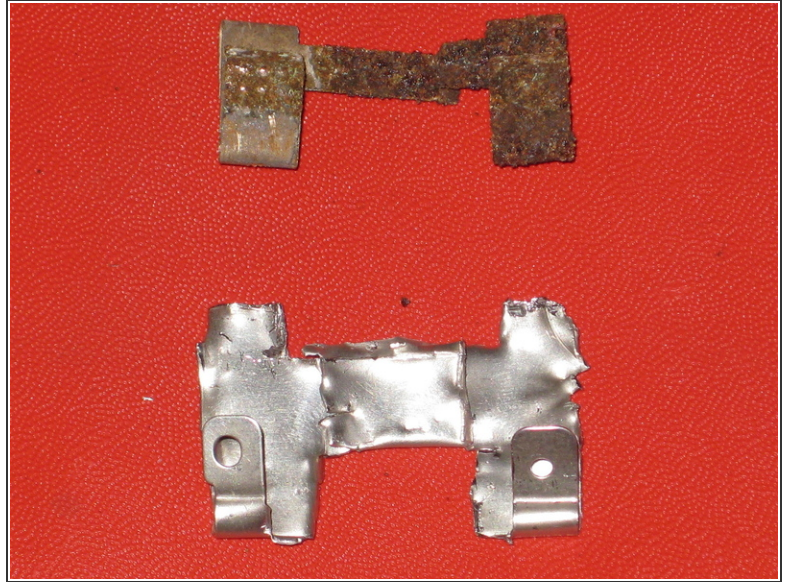
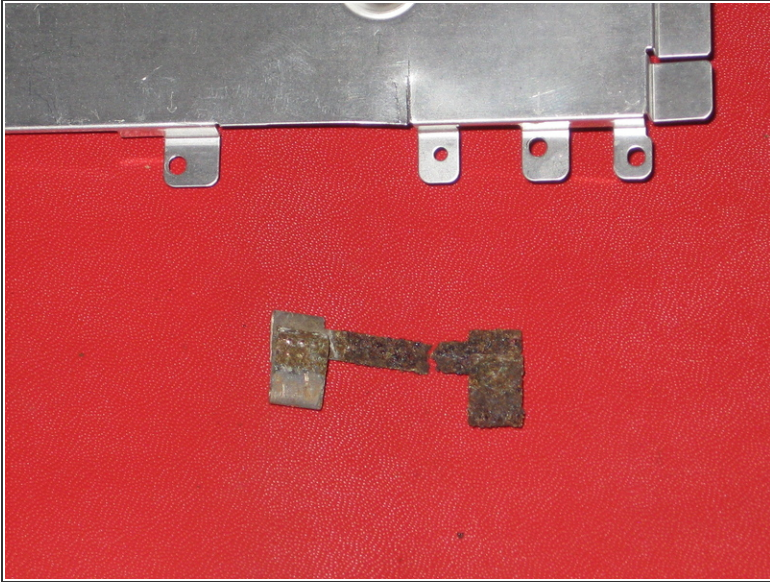
- Separate the two halves of the case to expose the inner PCB, speaker and battery holder.

## Step 3 — Battery Contacts



- This is one of the worst possible cases of battery terminal damage.
  - The negative terminal was corroded badly, but could be cleaned enough to be usable.
  - The positive terminal had already decomposed entirely; there was no metal left, and the wire was just hanging loose.
  - The bus strip is clipped into the plastic case; it broke upon removal and needed to be recreated from scratch.

## Step 4



- Time to get creative! We need a new bus strip to connect the two pairs of batteries in series.
- The old, corroded terminals fell apart when I removed them, so I found some random scrap metal from another toy and made something similar in shape.
- ⓘ Some people use aluminum foil for this, but it is not very durable and will not apply spring-pressure to keep the batteries in place.



## Step 5



- The old positive battery clip was completely disintegrated, so I made a new clip out of scrap metal and soldered the battery lead back on.
- After our repairs, the device is as good as new!

To reassemble your device, follow these instructions in reverse order.

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